NOTES ON TEXAS COCCINELLIDAE.

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The following is a list of Coccinellids collected principally by the writer in the vicinity of College Station and in Hidalgo county, Texas, during 1930, 1931, and 1932. Notes, as far as possible, are given on the habitat, host, and the date that each species was collected. Of the 64 species and varieties listed herein, 19 have not been heretofore reported from this state. The writer is indebted to Dr. E. A. Chapin for determining some of the species of *Hyperaspis* and *Scymnus*.

*Hyperaspis octonotata Casey, Sonora, April 18, 1932 (Jones). Hyperaspis lateralis Muls., College Station, May 2, 1932.

Hyperaspis bigeminata (Rand.), College Station, April 9, May 2, 1931, May 1, 1932, collected on arborvitae plants that were infested with *Dilachnus* sp. Dallas, May 23, 1932, feeding on cottony maple scale, *Pulvinaria vitis* (Linn.).

*Hyperaspis signata (Oliv.), College Station, March to June, 1931. Austin, May 31, 1931, feeding on cottony maple scale,

Pulvinaria vitis (Linn.).

*Hyperaspis binotata (Say), College Station, March to June, 1931, feeding on aphids. Austin, May 31, 1931, feeding on cottony maple scale, *Pulvinaria vitis* (Linn.).

Hyperaspis globula Casey, Hidalgo county, January 23, 1933,

feeding on scale, Inglisia malvacearum Ckll. (Clark).

Hyperaspis lengi Schfr., Hidalgo county, June 12, 1930, April 24, 1931, July 17, 1932, from week sweepings (Clark), Janu-

ary 25, 1933 (Monk).

*Hyperaspis nevadica Casey, Elsa, July 17, 1932. The specimen from Texas differs from several specimens from Yakima, Washington, in having broader, reddish marginal vittae beginning very near the basal margin that are more dilated internally.

*Hyperaspis dissoluta Cr., Taylor, April 4, 1929. Hyperaspis trifurcata Schfr., College Station, January 28, 1918 (Reinhard).

^{*} Species preceded by an asterisk have not been heretofore reported from Texas.

Hyperaspis fimbriolata Melsh., Taylor, June 1, 1929. College Station, June to August, 1931, July 7, collected on ragweed, Ambrosia sp., July 9, collected on cotton.

Hyperaspis fimbriolata marginatus Ga., College Station, May,

1932, from weed sweepings.

*Hyperaspis bensonica Casey, College Station, July 9, 1931, April

19, 1932, collected on cotton (Reinhard).

Hyperaspis undulata (Say), Hidalgo county, June 2, 1930. Elsa, July 17, 1932. (Specimens from Texas differ from specimens from Minnesota and Iowa in that they are more broadly oval, the pale marginal vittae are narrower, and the pronotum is more lustrous and densely punctate.)

Hyperaspidius vittigera Lec., College Station, July 31, October

2, 1931, May 9, 1932.

*Hyperaspidius pallidus Casey, College Station, July 15, 1932.

Brachyacantha bistripustulata (Fab.), Hidalgo county, April 15,

1931 (Monk).

Brachyacantha bistripustulata decora Casey, Mission, May 11, 1929 (Bibby). College Station, May 4, 1931, collected on mesquite, Prosopis sp., October 28, 1932, collected on cotton. Hidalgo county, May to July, 1930, December, 1930, collected on cacti that were infested with mealy bugs (Clark), June 1, 1931 (Monk).

.Brachyacantha bistripustulata minor Leng, Hidalgo county, June 24, 1930, April 15, 1931 (Monk). College Station, Septem-

ber 20, 1932.

Brachyacantha dentipes (Fab.), College Station, June 12, 1930. *Brachyacantha dentipes separata Leng, Hidalgo county, May 27, June 6, 1930.

Brachyacantha subfasciata Muls., Sonora, April 14, 1932

(Jones).

Brachyacantha quadrillum Lec., Hidalgo county, May 27, 1930. College Station, June 15–18, July 31, 1931.

Brachyacantha blaisdelli Nun., Hidalgo county, June 6, 1930. College Station, June 28, 1932.

Brachyacantha testudo Casey, Hidalgo county, May 27, 1930,

June 1, 1931 (Monk).

Brachyacantha bolli Cr., March 14–18, 1931, collected on black haw, Viburnum sp., infested with aphids, July 15, 1932, from oak, Quercus virginiana Miller, November 11, 1932, from cotton sweepings.

Microweisea minuta (Casey), College Station, April 18, 1930

(Reinhard).

Scymnus creperus Muls., College Station, common from April to November, 1931, 1932, on plants that were infested with aphids, was observed hibernating in moss, Tillandsia usneoides L., Taylor, June 1, 1927. Hidalgo county, June 1, 1931. Scymnus texanus Casey, College Station, May 4, 1931, June 6, 1931.

*Scymnus haemorrhous Lec., College Station, March 14, 1931,

feeding on aphids.

*Scymnus cervicalis Muls., College Station, April 19, 1930, feeding on aphids, March 14, 1931.

*Scymnus tenebrosus Muls., College Station, April 12 and 15,

1931.

Scymnus cinctus Lec., College Station, March 20, 1930, collected on cotton, May 2, 1930, June and July, 1931, February 11, 1933, hibernating in grass. Taylor, June 20, 1929. Dickinson, September 7, 1931 (Roney). Plainview, October 14, 1931 (Jones).

Scymnus americanus Muls., College Station, May 23, June 9,

and July 9, 1931.

Scymnus intrusus Horn, College Station, June, 1932, September 10, 1932 (Reinhard).

Scynnus terminatus Say, College Station, April, May, and June, 1931, Dickinson, September 10, 1931 (Roney).

Scymnus brunnescens Casey, College Station, June 14, 1932, collected on cotton.

*Cryptolaemus montrouzieri Muls., Beaumont, August 12

(Combs), introduced to control mealy bugs on figs.

Rodolia cardinalis (Muls.), Hidalgo county, May 20, 1930, December, 1930 (Clark). Beeville, August 11, 1931. Introduced to control cottony-cushion scale, Icerya purchasi Mask.

*Psyllobora viginiti-maculata (Say), College Station, January 15, 1931, hibernating in moss, Tillandsia usneoides L., March to April, 1931.

Psyllobora viginiti-maculata renifer Casey, College Station, March to August, 1931. Spur, September 12, 1932 (Brom-

ley).

Naemia seriata (Melsh.), Galveston county, 1929 (Hull). Fort Bend county, May 29, 1932, collected on corn (Fletcher).

Ceratomegilla fuscilabris (Muls.), Taylor, June 20, 1929. College Station, 1931, 1932, common from April to November on plants that were infested with aphids. Hidalgo county, May

2, June 12, 1930. Dickinson, March 6, 1931 (Roney). Win-

terhaven, September 7, 1932 (Mortensen).

Hippodamia convergens Guer., Taylor, May 25, June 20, 1929. Gilmer, December 27, 1930. College Station, 1931, 1932, common from April to November on plants that were infested with aphids. Hidalgo county, May 21, June 12, 1930. Dickinson, March, 1931 (Roney). Winterhaven, September 7, 1932 (Mortensen).

*Hippodamia convergens ambigua Lec., College Station, May to October, 1931. Hidalgo county, June 1, 1931. San Angelo, May 15, 1931 (Jones). Lamesa, May 15, 1931 (Jones).

*Neoharmonia venusta (Melsh.), Simonton, June 9, 1928. Madison county, September 8, 1930 (Bibby). College Station, January 14, 1931, hibernating in moss, Tillandsia usneoides L., April to September, 1931, collected on willow, Salix sp., and prickly ash, Xanthoxylum clava-herculis Linn., that were infested with aphids.

Coccinella novemnotata Hbst., Amarillo, September 28, 1930 (Jones), May 10, 1931 (Jones). Hereford, May 12, 1931

(Jones). Gilmer, December 27, 1930.

Cycloneda sanguinea (Linn.), College Station, 1931, 1932, common from April to November on plants that were infested with aphids, was observed hibernating in moss, *Tillandsia usneoides* L., Hidalgo county, May 21, 1930. Winterhaven, September 7, 1932 (Mortensen).

*Cycloneda sanguinea immaculata (Fab.), College Station, 1931, 1932, common from April to November on plants that were

infested with aphids. Hidalgo county, June 20, 1930.

*Cycloneda munda (Say), College Station, 1931, 1932, common from April to November on plants that were infested with

aphids.

Olla abdominalis (Say), College Station, 1931, 1932, common from April to November on plants that were infested with aphids, was observed hibernating in moss, *Tillandsia usne-oides* L., Winterhaven, September 7, 1932 (Mortensen).

Olla abdominalis plagiata Casey, College Station, 1931, 1932, common from April to November on plants that were infested with aphids, was observed hibernating in moss, Til-

landsia usneoides L.

*Olla abdominalis arizonae Casey, Castolon, June 1, 1928 (Bibby). Hidalgo county, May 21, 1930. College Station, March 23, April 7, 1931. Spur, September 11, 1932 (Bromley). Cleis concolor Cr., College Station, March 19 to April 27, 1931, collected on arborvitae plants that were infested with Dilachnus sp.

Neomysia pullata (Say), College Station, March to April, 1931, collected on arborvitae plants that were infested with Di-

lachnus sp.

Axion pilatei Muls., Taylor, May 10, 1929. Spur, March 11, 1931. College Station, May 26, 1931, collected on oak, Quercus stellata Wangenheim, that was infested with scale. Dallas, June 2, 1932, feeding on cottony maple scale, Pulvinaria vitis (Linn.).

Axion tripustulatum (DeG.), College Station, April 15, May 26, June 1, 1931, collected on oak, Quercus stellata Wangenheim, that was infested with scale. October 7, 1932, collected from

moss, Tillandsia usneoides L.

Chilocorus cacti Linn., Hidalgo county, April 15 to June 15, 1930, feeding on scale on citrus trees. Kenedy, June 30, 1931, feeding on scale on chinaberry. Dickinson, September 7, 1931 (Roney).

Chilocorus bivulnerus Muls., Hidalgo county, June, 1930, feeding on scale on citrus trees. College Station, May, 1931, collected on oak, Quercus stellata Wangenheim, that was in-

fested with scale.

Exochomus marginipennis childreni Muls., Taylor, June 20, 1929. College Station, April 4, 1930. January 15, 1931, hibernating in moss, Tillandsia usneoides L., April 20, 1931, May 18, 1931, collected on oak, Quercus stellata Wangenheim, that was infested with aphids, May 9, 1931, collected on mesquite, Prosopis sp., November 11, 1932, collected on cotton, observed in large numbers on ragweed, Ambrosia sp., probably feeding on pollen.

Exochomus marginipennis latiusculus Casey, College Station, April 1, 1917 (Reinhard). Hidalgo county, December, 1930,

feeding on mealy bugs on cactus (Clark).

*Epilachna borealis (Fab.), College Station, April 17, 1932 (Reinhard).

Epilachna corrupta Muls., Observed near El Paso in 1931, no specimens taken (Thomas).

Epilachna toweri Joh., Presidio, August 17, 1931 (Thomas).